IN THE CLAIMS

Please amend the claims as follows:

1.   (Currently Amended) A method for detecting conditions in an electronic device fabrication facility, comprising:

~~determining each route a workpiece may follow during fabrication;~~

measuring fabrication data;

determining the route a ~~particular~~ workpiece ~~followed~~ follows during fabrication;

storing fabrication data relevant to the route [[a]] the workpiece followed during fabrication in the data set of the workpiece;

analyzing the data set of the workpiece; and

examining the analysis.

2.   (Currently Amended) The method of claim 1, wherein the route a particular workpiece ~~may follow~~ follows is a subset of the entire manufacturing process.

3.   (Currently Amended) The method of claim 1, wherein determining includes;

identifying operations that are linked in some manner;

determining the subparts of the identified operations; and

developing a listing of all possible routes through the ~~subparts~~ subdivisions of the operations that a workpiece may traverse during fabrication.

4.   (Currently Amendnd) The method of claim 3, wherein operations includes machines, chambers, processes associated with the route [[a]] the workpiece ~~may follow~~ follows.

5.   (Original) The method of claim 3, wherein the manner of linking is by physical location.

6.   (Original) The method of claim 3, wherein the manner of linking is by machine type.

7.   (Original) The method of claim 3, wherein the manner of linking is by time of processing.

AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111
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8.　(Original)　The method of claim 3, wherein the linking is by any other condition relevant to the fabrication process.

9.　(Currently Amended)　The method of claim 3, wherein the determining the ~~subparts~~ subdivisions includes identifying all parts of the operation, machine, process, chamber and the like that have a substantially similar end product.

10.　(Currently Amended)　The method of claim 3, wherein all possible routes only includes probable routes through the ~~subparts~~ subdivisions.

11.　(Currently Amended)　A method for detecting conditions in an electronic device fabrication facility, comprising:

　　~~determining each route a workpiece may follow during fabrication;~~

　　~~separately for each route, measuring fabrication data items relevant to that route;~~

　　determining the route a ~~particular~~ workpiece followed during fabrication;

　　separately for each route, measuring fabrication data items relevant to that route;

　　storing fabrication data relevant to the route [[a]] the workpiece followed during fabrication in the data set of the workpiece;

　　analyzing the data set of the workpiece; and

　　examining the analysis.

12.　(Original)　The method of claim 11, wherein the fabrication data items are measured from production data sources.

13.　(Original)　The method of claim 12, wherein the production data source is a test probe.

14.　(Original)　The method of claim 12, wherein the production data source is a parametric measuring device.

15.   (Original) The method of claim 12, wherein the production data source is one in which film thickness is being measured.

16.   (Original) The method of claim 12, wherein the production data source is one in which critical dimensions are being measured.

17.   (Original) The method of claim 12, wherein the production data source includes any other data source that is relevant to the fabrication process and its condition.

18.   (Currently Amended) A method for detecting conditions in an electronic device fabrication facility, comprising:

      ~~determining each route a workpiece may follow during fabrication;~~

      ~~separately for each route, measuring fabrication data relevant to that route;~~

      determining the exact route a ~~particular~~ workpiece actually followed during fabrication;

      <u>separately for each route, measuring fabrication data relevant to that route;</u>

      storing fabrication data relevant to the route [[a]] <u>the</u> workpiece <u>actually</u> followed during fabrication in the data set of the workpiece in a data processing device;

      analyzing the data set of the workpiece; and

      examining the analysis.

19.   (Currently Amended) The method of claim 18, wherein fabrication data relevant to the route a workpiece <u>actually</u> followed during fabrication is relevant based on physical proximity to the route.

20.   (Currently Amended) The method of claim 18, wherein fabrication data relevant to the route a workpiece <u>actually</u> followed during fabrication is relevant based manufacturing result.

21.   (Original) The method of claim 18, wherein the data processing device is a computer system containing a relational database on a storage device and executed on a processor.

22.   (Original) The method of claim 18, wherein storing fabrication data in a data processing device includes:

adding a data item from the measured route fabrication data to the data set of the workpiece; and

relating the added data item to the previously stored data items by some point of data commonality.

23.   (Original) The method of claim 22, wherein the point of data commonality is based on time.

24.   (Currently Amended) A method for detecting conditions in an electronic device fabrication facility, comprising:

~~determining each route a workpiece may follow during fabrication through the fabrication faclity;~~

~~separately for each route, measuring fabrication data relevant to that route;~~

determining the exact route a ~~particular~~ workpiece actually followed during fabrication;

separately for each route, measuring fabrication data relevant to that route;

storing fabrication data relevant to the route [[a]] the workpiece actually followed during fabrication in the data set of the workpiece in a data processing device;

performing an analysis on the data set of the workpiece; and

examining the analysis.

25.   (Original) The method of claim 24, wherein the analysis is a statistical analysis.

26.   (Original) The method of claim 24, wherein the analysis is a trend analysis.

27.   (Original) The method of claim 24, wherein the analysis is a correlation study.

28.   (Original) The method of claim 24, wherein examining includes comparing the analysis of the data set of the workpiece to expected conditions.

29.   (Currently Amended) A method for responding to conditions in an electronic device fabrication facility, comprising:

~~determining each route a workpiece may follow during fabrication;~~

measuring fabrication data;

determining the route a ~~particular~~ workpiece followed during fabrication;

storing fabrication data relevant to the route [[a]] the workpiece followed during fabrication in the data set of the workpiece;

analyzing the data set of the workpiece;

comparing the analysis to expected conditions; and

responding to the comparison.

30.   (Currently Amended) The method of claim 29, wherein the route [[a]] the workpiece ~~may follow~~ followed is a subset of the entire manufacturing process.

31.   (Currently Amended) The method of claim 29, wherein determining includes;

identifying operations that are linked in some manner;

determining ~~the subparts~~ subdivisions of the identified operations; and

developing a listing of all possible routes through the ~~subparts~~ subdivisions of the operations that a workpiece may traverse during fabrication.

32.   (Currently Amended) The method of claim 31, wherein operations includes machines, chambers, processes associated with the route [[a]] the workpiece ~~may follow~~ followed.

33.   (Original) The method of claim 31, wherein the manner of linking is by physical location.

34.   (Original) The method of claim 31, wherein the manner of linking is by machine type.

35.   (Original) The method of claim 31, wherein the manner of linking is by time of processing.

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36.   (Original) The method of claim 31, wherein the linking is by any other condition relevant to the fabrication process.

37.   (Currently Amended) The method of claim 31, wherein the determining the ~~subparts~~ subdivisions includes identifying all parts of the operation, machine, process, chamber and the like that have a substantially similar end product.

38.   (Currently Amended) The method of claim 31, wherein all possible routes only includes probable routes through the ~~subparts~~ subdivisions.

39.   (Currently Amended) A method for responding to conditions in an electronic device fabrication facility, comprising:

        determining each route [[a]] one or more ~~workpiece~~ workpieces ~~may follow~~ follows during fabrication;

        separately for each route, measuring fabrication data items relevant to that route;

        determining the route a particular workpiece followed during fabrication;

        storing fabrication data relevant to the route [[a]] the particular workpiece followed during fabrication in the data set of the workpiece;

        analyzing the data set of the particular workpiece;

        comparing the analysis to expected conditions; and

        responding to the comparison.

40.   (Original) The method of claim 39, wherein the fabrication data items are measured from production data sources.

41.   (Original) The method of claim 40, wherein the production data source is a test probe.

42.   (Original) The method of claim 40, wherein the production data source is a parametric measuring device.

43.   (Original) The method of claim 40, wherein the production data source is one in which film thickness is being measured.

44.   (Original) The method of claim 40, wherein the production data source is one in which critical dimensions are being measured.

45.   (Currently Amended) A method for responding to conditions in an electronic device fabrication facility, comprising:

   determining each route [[a]] one or more ~~workpiece~~ workpieces ~~may follow~~ follows during fabrication;

   separately for each route, measuring fabrication data items relevant to that route;

   determining the exact route a particular workpiece actually followed during fabrication;

   storing fabrication data relevant to the route [[a]] the particular workpiece actually followed during fabrication in the data set of the particular workpiece in a data processing device;

   analyzing the data set of the particular workpiece;

   comparing the analysis to expected conditions; and

   responding to the comparison.

46.   (Currently Amended) The method of claim 45, wherein fabrication data relevant to the route the particular workpiece followed during fabrication is relevant based on physical proximity to the route.

47.   (Currently Amended) The method of claim 45, wherein fabrication data relevant to the route the particular workpiece followed during fabrication is relevant based manufacturing result.

48.   (Original) The method of claim 45, wherein the data processing device is a computer system containing a relational database on a storage device and executed on a processor.

49.   (Currently Amended) The method of claim 45, wherein storing fabrication data in a data processing device includes:

adding a data item from the measured route fabrication data to the data set of the particular workpiece; and

relating the added data item to the previously stored data items by some point of data commonality.

50.   (Original) The method of claim 49, wherein point of data commonality is based on time.

51.   (Currently Amended) A method for responding to conditions in an electronic device fabrication facility, comprising:

determining each route [[a]] one or more ~~workpiece~~ workpieces ~~may follow~~ follows during fabrication;

separately for each route, measuring fabrication data items relevant to that route;

determining the exact route a particular workpiece actually followed during fabrication;

storing fabrication data relevant to the route [[a]] the particular workpiece actually followed during fabrication in the data set of the particular workpiece in a data processing device;

performing an analysis on the data set of the particular workpiece on a data processing device;

non-manually comparing the analysis to expected conditions; and

responding to the comparison.

52.   (Original) The method of claim 51, wherein the analysis is a statistical analysis.

53.   (Original) The method of claim 51, wherein the analysis is a trend analysis.

54.   (Original) The method of claim 51, wherein the analysis is a correlation study.

55.   (Original) The method of claim 51, wherein responding includes:

alerting a user when the comparison shows an unexpected condition.

56.   (Original) The method of claim 55, wherein the alerting is by visual cues on an output device of the data processor.

57.   (Original) The method of claim 55, wherein the alerting is by the data processor sending a message to the user of an unexpected condition.

58.   (Original) The method of claim 55, wherein the data processing device non-manually halts production when an unexpected condition occurs.

59.   (Original) The method of claim 51, wherein responding includes:

not alerting a user when the comparison shows expected conditions in the fabrication facility.

60.   (Original) The method of claim 51, wherein responding includes:

non-manually continuing fabrication when the comparison shows expected conditions in the fabrication facility.